

CLAIMS

1. A data processor for receiving a data stream, including a plurality of packets, and playing back a content concurrently based on content data stored in the packets,

5 each said packet having an identifier, the content data including a first code, which specifies a data location of a first portion of the content, and a second code, which specifies a data location of a second portion thereof,

the data processor comprising:

10 a dummy packet processing section, which makes a plurality of dummy packets, each having a dummy identifier that is different from any of the identifiers of the packets, and which generates a playback stream, including the dummy packets at predetermined intervals, based on the data stream

15 received;

a detecting section for detecting any of the dummy identifiers by scanning the identifiers of the respective packets of the playback stream and then outputting a first detection signal upon detecting the first code and a second

20 detection signal upon detecting the second code, respectively;

a switch, which receives the playback stream and which selectively passes the content data representing the first portion of the content in accordance with the first and second detection signals; and

5 a decoding section for playing back the first portion of the content based on the output of the switch.

2. The data processor of claim 1, wherein the dummy packet processing section generates the playback stream by 10 inserting the dummy packets into the data stream at time intervals as defined by the playback duration of a given picture.

3. The data processor of claim 1, wherein after having 15 detected the second code, the detecting section detects the next dummy identifier by scanning the identifiers of the respective packets.

4. The data processor of claim 1, further comprising an 20 extracting section for continuously extracting, as a

plurality of partial streams, a number of portions of at least one data stream from a storage medium on which the data stream is stored,

wherein the dummy packet processing section inserts the 5 dummy packet with the dummy identifier into each data location at which two of the partial streams are connected together.

5. The data processor of claim 1, wherein the dummy 10 packet processing section generates the playback stream by inserting the dummy packet into the data stream upon the detection of the second code.

6. The data processor of claim 1, wherein the data 15 processor receives at least two data streams, including the data stream and each having the content data about a program, and

wherein the data processor further includes a channel selecting section for selecting one of the data streams, and 20 wherein upon the detection of the second code, the

channel selecting section switches a first data stream, which has been received until the second code is detected, into a second data stream, and

5 wherein the dummy packet processing section generates a playback stream in which the dummy packet is provided at a data location where the first data stream is switched into the second data stream.

7. The data processor of claim 6, wherein the dummy
10 packet processing section generates the playback stream by replacing the packets of the first data stream, which follow the packet with the second code, by the dummy packets and then connecting the second data stream to the first data stream.

15 8. The data processor of claim 1, wherein the data stream includes compressed content data, and
 wherein the decoding section plays back the first portion of the content by decoding the content data.

20 9. The data processor of claim 8, wherein the content is

related to video to be presented by switching a plurality of pictures one after another, the content data having been compressed by a bidirectional predictive coding method, and wherein the detecting section detects a picture header 5 code of an I-picture as the first code and a picture header code of the next picture, following the I-picture, as the second code, respectively.

10. The data processor of claim 1, wherein the detecting 10 section detects, as the first code, at least one of a picture header code, a PES header code, a sequence header code, and a group of pictures (GOP) header code, and, as the second code, the same type of code as the first code, respectively.

15 11. A data processing method for receiving a data stream, including a plurality of packets, and playing back a content concurrently based on content data stored in the packets,

each said packet having an identifier, the content data 20 including a first code, which specifies a data location of a

first portion of the content, and a second code, which specifies a data location of a second portion thereof,

the method comprising the steps of:

making a plurality of dummy packets, each having a dummy 5 identifier that is different from any of the identifiers of the packets;

generating a playback stream, including the dummy packets at predetermined intervals, based on the data stream received;

detecting any of the dummy identifiers by scanning the 10 identifiers of the respective packets of the playback stream and then outputting a first detection signal upon detecting the first code and a second detection signal upon detecting the second code, respectively;

receiving the playback stream and selectively passing 15 the content data representing the first portion of the content in accordance with the first and second detection signals; and

playing back the first portion of the content based on the output of the switch.

12. The data processing method of claim 11, wherein the
step of generating the playback stream includes generating the
playback stream by inserting the dummy packets into the data
stream at time intervals as defined by the playback duration
5 of a given picture.

13. The data processing method of claim 11, wherein the
step of outputting the detection signals includes detecting
the next dummy identifier by scanning the identifiers of the
10 respective packets after having detected the second code.

14. The data processing method of claim 11, further
comprising the step of continuously extracting, as a
plurality of partial streams, a number of portions of at
15 least one data stream from a storage medium on which the data
stream is stored,

wherein the step of generating the playback stream
includes inserting the dummy packet with the dummy identifier
into each data location at which two of the partial streams
20 are connected together.

15. The data processing method of claim 11, wherein the step of generating the playback stream includes generating the playback stream by inserting the dummy packet into the data stream upon the detection of the second code.

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16. The data processing method of claim 11, wherein there are at least two data streams to receive, including the data stream, each said data stream having the content data about a program, and

10 wherein the data processing method further includes the step of selecting one of the data streams, and

wherein the step of selecting includes switching a first data stream, which has been received until the second code is detected, into a second data stream upon the detection of the 15 second code, and

wherein the step of generating the playback stream includes generating a playback stream in which the dummy packet is provided at a data location where the first data stream is switched into the second data stream.

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17. The data processing method of claim 16, wherein the
step of generating the playback stream includes generating the
playback stream by replacing the packets of the first data
stream, which follow the packet with the second code, by the
5 dummy packets and then connecting the second data stream to
the first data stream.

18. The data processing method of claim 11, wherein the
data stream includes compressed content data, and
10 wherein the step of playing includes playing back the
first portion of the content by decoding the content data.

19. The data processing method of claim 18, wherein the
content is related to video to be presented by switching a
15 plurality of pictures one after another, the content data
having been compressed by a bidirectional predictive coding
method, and

wherein the step of outputting the detection signals
includes detecting a picture header code of an I-picture as
20 the first code and a picture header code of the next picture,

following the I-picture, as the second code, respectively.

20. The data processing method of claim 11, wherein the
step of outputting the detection signals includes detecting,
5 as the first code, at least one of a picture header code, a
PES header code, a sequence header code, and a group of
pictures (GOP) header code, and, as the second code, the same
type of code as the first code, respectively.